

Amendments to the Drawings

The attached sheet of drawings includes changes to Fig. 1. This sheet replaces the original sheet including Fig. 1.

Figure 1 is modified herein to depict a framer/deframer 105 that is supported by the original claims and specification as filed. As such, the depiction of a framer/deframer 105 does not constitute new matter.

Attachment: Replacement Sheet; Annotated Sheet Showing Changes

Remarks/Arguments

Claims 1-2, 4-6, 8-13, 16-28, 30-37 and 42 are pending. Claims 1, 6, 8, 25, 28, 34 and 37 are independent.

Claim 3 is cancelled and claims 1-2, 6, 8-12, 16-25, 28, 31-32 and 34 are amended herein. Amendments to claims 2 and 34 are presented to correct typographical errors, while the amendments to claims 1, 6, 8-12, 16-25, 28, 31 and 32 are presented to overcome the Examiner's rejection of the claims under 35 U.S.C. 112, second paragraph. None of the claims are amended to overcome any of the cited art, and are not intended to narrow the scope of the claims in any way. No new matter has been added. Favorable reconsideration is respectfully requested.

Applicants note with appreciation the indication of allowance of claims 8-10, 12, 13, 16-24 and 30-33, notwithstanding the rejections under 35 U.S.C. 112, second paragraph. In view of the amendments herein, Applicants believe claims 8-10, 12, 13, 16-24 and 30-33 are in condition for allowance, and notice to that effect is respectfully requested.

Claim Objections

Claim 3 is objected to under 37 CFR 1.75(c) as allegedly being of improper dependent form. Without conceding propriety of the Examiner's rejection, claim 3 has been cancelled. As such, the objection to claim 3 is moot.

Claim Rejections – 35 U.S.C. § 112

Claims 1-6, 8-13, 16-28, and 30-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Specifically, claims 1, 6, 8-12, 16-25, 28, 31, and 32 are allegedly indefinite because each recites the language "adapted to" which the Examiner maintains does not limit the scope of the claims. Without conceding propriety of the Examiner's rejections, each of claims 1, 6, 8-12, 16-

25, 28, 31 and 32 is amended herein to more distinctly recite its respective features. Namely, claims 1, 6, 8, 11, 12, 16, 25, and 28 are amended to recite “configured to”, while claims 9, 10, 31 and 32 are amended herein to replace “adapted to” with “enabled to” and claims 17-24 are amended to recite “for displaying” as opposed to “enabled to display.” These amendments are not intended to narrow the scope of the claims in any way.

Claims 1, 25, 27, 30 and 34 are rejected to under 35 U.S.C. 112, second paragraph because the use of the language “approximately,” allegedly does not define the scope of the claims. Applicants respectfully disagree with the Examiner’s rejections.

MPEP 2173.02 states: The essential inquiry pertaining to this requirement [of definiteness under 35 U.S.C. 112, second paragraph] is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;*
- (B) The teachings of the prior art; and*
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.*

As such, Applicants maintain that the recitation of “approximately” when taken in context with the present specification (e.g. paragraphs [0014], [0042] and [0046]) and the understanding of one of ordinary skill in the art does not render the claims indefinite. The scope of the claim features may be reasonably determined by one of ordinary skill in the art in view of the claim taken as a whole, as well as from one’s understanding of the present specification. Accordingly, Applicants request the Examiner to reconsider and withdraw the rejections of claims 1, 25, 27, 30 and 34 under 35 U.S.C. 112, second paragraph for the reasoning presented above.

Additionally, the Examiner submits that what is being claimed in independent claims 1, 6, 8, 25 and 28 allegedly does not correspond to what is described in the specification.

Particularly, the Examiner points to Figure 1 as depicting that “the DS3 data stream is first received by the DS3 line interface unit 102, then it goes to framer 114a, and then is inverse multiplexed into four parallel data streams by inverse multiplexer 104.” It is this that the Examiner believes is in contradiction to what is presented in the claims. Applicants respectfully disagree with the Examiner’s interpretation of the claims in view of Figure 1. The framer 114a cited by the Examiner is not to be confused with the claimed framer configured to receive each of said parallel data streams, and to generate a stream of packets. The DS3 Framer 114a is provided for operation on the received DS3 data stream so as to enable specific DS3 operations and reconstruction of the DS3 data stream at the receiving end unit. Conversely, the claimed framer configured to generate a stream of packets, performs the provided functionality on the inversely multiplexed parallel data streams, so that they may be properly transmitted and reconstructed at the receiving multiplexer/inverse multiplexer.

To provide further clarity of this feature, Applicants have modified Figure 1, as discussed above to explicitly depict the claimed framer. The changes shown in Figure 1 are not new matter and are supported by the original specification. Specifically, the claims as originally filed recited this very feature. Further, paragraph [0046] as originally filed, states that “each $\frac{1}{4}$ DS3 stream is placed into 64 byte (512) packets.” Clearly, the original specification provided that framing and packet generation occurred on the claimed parallel data streams. The functionality of framer 105 could be provided integrally with the multiplexer/inverse multiplexer 104, since the multiplexer/inverse multiplexer is described as being implemented within a single field programmable gate array (FPGA), see paragraph [0027]. Thus, it should be understood that the claimed framer can be included in the single logical block 104 shown in Figure 1. Nevertheless, Figure 1 has been modified to depict a framer module to overcome the Examiner’s rejection.

In view of the clarification provided above as well as the modification depicted in the amended Figure 1, Applicants submit that the Examiner’s interpretation of the claim features is incorrect. Accordingly, Applicants respectfully request the Examiner to reconsider the features of the claims as filed and supported by the specification.

For each of the reasons presented above, Applicants respectfully request the Examiner to reconsider and withdraw the rejections to claims 1-6, 8-13, 16-28, and 30-36 under 35 U.S.C. 112, second paragraph.

Claim Rejections – 35 U.S.C. § 103

1. Claims 1, 3, 5, 11, 25, 27, 34 and 42 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Peleg (U.S. Publication No. 2003/0107999) in view of Evans (U.S. Patent No. 6,928,056).

Applicants respectfully disagree with the Examiner's rejection. Specifically, the Examiner states that Peleg teaches the claimed high speed data interface configured to receive said DS3 data stream and to inversely multiplex said high speed data stream into four parallel data streams, and a framer configured to receive each of said parallel data streams, and to generate a stream of packets. The Examiner points to a chopper 8 shown in Fig. 2 of Peleg and described in paragraph [0038], as allegedly teaching the claimed framer. However, the cited chopper as described, receives a broadband data stream from a data source and chops the broadband data stream into data cells (allegedly analogous to the claimed packets, which Applicants do not concede) having predetermined size. The inverse multiplexer then receives the data cells and performs an inverse multiplexing to distribute the received data cells. Conversely, claim 1 recites that the framer is configured to generate a stream of packets for a parallel data stream received from an inverse multiplexer. The packets generated in claim 1, for transmission across the parallel data streams, are generated on parallel data streams of the inversely multiplexed DS3 data stream, not on the DS3 data stream prior to multiplexing. As such, Peleg fails to teach each feature relied on by the Examiner.

The Examiner acknowledges that Peleg does not expressly teach that each packet generated by the framer has a packet index number and a packet stream number. Since the data cells in Peleg are generated prior to any inverse multiplexing, it is not surprising that Peleg would fail to teach at least packet stream number corresponding to the respective parallel data stream. The Examiner applies Evans for allegedly disclosing this feature. Evans however, fails

to overcome at least the above deficiencies of Peleg. As such, there is no reasonable combination of Peleg and Evans that is capable of arriving at each of the claimed features.

Accordingly, in view of the above, Applicants submit that claim 1 is patentable over any reasonable combination of Peleg and Evans. Independent claims 25 and 34 recite similar subject matter as that of claim 1 and thus are distinguished from the cited art at least for the reasons presented above. Dependent claims 3, 5, 11, 27, and 42 are patentable on their merit, yet are distinguished from the cited art at least by virtue of their dependency from claims 1, 25 and 34, respectively.

Dependent claim 2 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Peleg in view of Evans and further in view of Knapp (U.S. Publication No. 2008/0095191). Dependent claims 4, 26 and 35 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Peleg in view of Evans and further in view of Barlev et al. (U.S. Publication No. 2005/0220180). Dependent claim 5 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Peleg in view of Evans and Knapp and further in view of Barlev. Dependent claim 36 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Peleg in view of Evans and further in view of Wolf (U.S. Publication No. 2002/0080825).

With respect to the above dependent claims, Applicants submit that each is patentable on its own merit, yet is distinguished from the cited art at least by virtue of its dependency from independent claims 1, 25 and 34, respectively. As such, Applicants respectfully request reconsideration and withdrawal of the above rejections to the each of the dependent claims in view of the remarks presented above with respect to independent claims 1, 25, and 34.

2. Claims 6, 28 and 37 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Peleg (U.S. Publication No. 2003/0107999) in view of Evans (U.S. Patent No. 6,928,056) and further in view of the Applicant's own admission of prior art.

In view of the above, Applicants respectfully disagree with the Examiner's rejections. With respect to claim 6, Examiner relies on the combination of Peleg and Evans to allegedly teach the features of the claimed high speed data interface, framer and plurality of modems. However, as discussed above, there is no reasonable combination of Peleg and Evans that

teaches at least the claimed framer configured to receive one of the parallel data streams, and to generate a stream of packets.

Further, the Examiner acknowledges that the proposed combination fails to disclose a processor that is configured to identify a loopback code in said high speed data stream, wherein said processor is further adapted to pass through a first received loopback code to another device, and to enter a loopback mode if an nth subsequent loopback code is received without an intervening loop down code. The Examiner relies on the Applicants' alleged admission of prior art for allegedly providing obviousness of this feature. Specifically, the Examiner points to paragraph [0022] of the present specification which states that DS3 test equipment can easily send multiple copies of the loop commands without an intervening loop down command. From this disclosure, the Examiner states that it therefore would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the claimed feature in order to perform testing using the capabilities of existing test equipment. Applicants respectfully disagree. The mere disclosure that existing DS3 test equipment can send multiple copies of a loop command provides no basis for obviousness of the claimed feature of a processor configured to pass through a first received loopback code to another device, and enter a loopback mode if an nth subsequent loopback code is received without an intervening loop down code. Conversely, the claimed feature was not a capability of existing test equipment at the time of the present invention, as alleged by the Examiner. Further, an exemplary embodiment of the present application introduces the need for this claimed feature that was not previously needed in the art. Specifically, paragraph [0020] of the present specification discloses that if an end unit 100 simply responded to either of the loopback codes, the NIU 110 and/or the remote terminal equipment 112 would not be able to respond to that loopback. As such, operation of the NIU and/or the remote terminal would not be able to be tested in loopback mode. Therefore, the present claim features are necessary for overcoming a unique issue that existing test equipment would not have been able to overcome. Nor would it have been obvious to one of ordinary skill in the art to incorporate the claimed feature into existing test equipment, since there was no need for the feature at that time.

In view of the above, Applicants submit that claim 6 is patentable over the cited art. Independent claims 28 and 37 recite similar features as those discussed above with respect to claim 6, and thus are believed to be patentable over the cited art for at least the reasons presented above. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejections to claims 6, 28 and 37 under 35 U.S.C. 103(a).

Conclusion

In view of the amendments and arguments set forth above, Applicants submit that the present application is in condition for allowance and would appreciate early notification of the same.

Deposit Account Authorization

Authorization is hereby made to charge any fees due or outstanding, or credit any overpayment, to Deposit Account No. **18-2220** (Order No. 45047)

Respectfully Submitted,

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